

Appl. No. 10/730,659  
Reply Dated Sept. 15, 2004  
Reply to Office Action of June 15, 2004  
Customer No. 27752

#### REMARKS

Claims 1-24 are pending in the present application. Claims 1, 3-9, and 13-24 have been rejected. Claims 2 and 10-12 are objected to as being dependent upon a rejected claim.

Claim 1 has been amended to recite a preferred embodiment by adding the phrase "wherein said cellulosic fibers are curled, crimped, or twisted." Support for this amendment is found in Claim 2 as originally filed.

Claim 2 has been cancelled without prejudice.

Claims 3-9 and 11-12 have been amended to delete "Fibrous" and insert "The fibrous."

Claim 10 was amended to recite a preferred embodiment by inserting the phrase "A fibrous material comprising cellulosic fibers, wherein said fibers comprise a polymeric resin comprising covalently bonded radiation reactive groups capable of forming cross-linking bonds upon being impacted by radiation energy and said fibers comprise" in place of "Fibrous material according to claim 1, further comprising." Support for this amendment is found in Claim 10 as originally filed.

Claim 18 was amended to recite a preferred embodiment by inserting the step of "applying a radiation activatable resin to said fibers." Furthermore, the phrase "from the resin coated fibers" has been added to the step of forming fiber aggregates. The step of "applying a radiation activatable resin to said fibers" has been deleted. Support for these amendments may be found in the specification on page 12, lines 14-20.

Claim 19 has been amended to insert the word "and" between the steps of (i) forming an intermediate web and disintegrating the intermediate web, and (ii) applying a non-radiation activatable cross-linking material and curing said nonradiation activated cross-linking material. Support for these amendments may be found in the specification on page 11, line 27 to page 12, line 5.

New Claim 25 has been added to recite a product produced from the method disclosed in Claim 18. Support for this addition may be found in the specification on page 14, line 5 to page 15, line 30.

No new matter is believed to have been added. Consequently, entry of these amendments is respectfully requested.

#### REJECTION UNDER 35 U.S.C. § 112

Claims 19-20 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Office states that Claim 19 is vague and indefinite as to what are the members of the

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Markush group or what steps may be repeated. Applicants have amended Claim 19 to clarify the members of the Markush group. As a result, Applicants respectfully request reconsideration and withdrawal of this rejection.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 3-9, 13-24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by WO Publication No. 92/11322 to Audett et al. (hereafter "Audett"). With regard to Claims 1, 3, 13, and 18, the Office states that Audett teaches the use of a polymeric resin, which is capable of forming crosslinking bonds when impacted by radiation energy, on a fibrous web. With regard to Claims 4-5, the Office states that Audett teaches the same radiation activatable groups as claimed by Applicants and the same polymeric backbones. With regard to Claims 6-7, the Office states that the amount of resin on the fibrous web falls within Applicants' claimed range. With regard to Claims 9 and 23, the Office states that Audett teaches that the resins are cured by exposing it to radiation energy. Regarding Claims 14-15, 21-22, and 24, the Office states that Audett teaches that the resin is either selectively cured to form a pattern or applied to a preselected region to form a pattern. Regarding Claims 17-18, the Office states that Audett discloses the use of the coated fibrous web as wet wipes, tissues, diapers, etc. Regarding Claims 19-20, the Office states that Audett teaches that the fibrous web is taken to a coating station where the web is coated then transported to the converting plant. Applicants traverse this rejection.

Audett relates to a coating and a method involving a radiation-crosslinkable polymer. Audett relates to UV and electron beam reactive functionalized copolymers of isoolefin and para-alkylstyrene formulated into lithographic coatings, corrosion resistant coatings, and other coatings. Audett further relates to a method of coating a portion of a surface of an article with a radiation-crosslinkable polymer and exposing the coated surface to a pattern of radiation to crosslink the polymer in a lithographic image. See Abstract.

Claims 1 and 10 have been amended such that Claim 1 now incorporates the limitation of Claim 2 and Claim 10 now is written in independent form including all the limitations of base Claim 1. The Office has already stated that Audett does not teach cellulosic fibers that are curled, crimped, or twisted and does not teach the fibrous material, as described in Claim 1, further comprising a second cross-linking material capable of forming cross-linking bonds without being impacted by radiation energy. See paragraph 6 of the Office Action dated June 15, 2004. Case law states, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of Cal.*, 814

Appl. No. 10/730,659  
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Customer No. 27752

F.2d 628, 631 (Fed. Cir. 1987); *See also* MPEP § 2131. As a result, Applicants request withdrawal of the rejection and allowance of Claims 1 and 10.

Claims 3-9 are dependent from Claim 1. Claims 11-17 are dependent from Claim 10. Since Claims 1 and 10 have been shown to be novel over Audett, all claims dependent therefrom are likewise novel over Audett.

Claim 18 has been amended such that the method now comprises the steps of providing cellulosic fibers; applying a radiation activatable resin to said fibers; forming fiber aggregates from the resin coated fibers; and curing of said radiation activatable resin. As amended, the method involves coating the cellulosic fibers with the radiation activatable resin then forming the aggregate from the resin coated fibers. Audett fails to disclose coating of the fibers and subsequent formation of the aggregate. Audett merely discloses applying its copolymer formulation "uniformly over the entire area of the non-woven web or in any predetermined pattern." Since Audett fails to teach or suggest every element recited in amended Claim 18, Applicants respectfully request withdrawal of the rejection and allowance of the claim. Likewise, since Claims 19-24 are dependent from and contain all limitations of Claim 18, these Claims are also novel over Audett.

Claims 1, 3-9, 13-24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,737,559 to Kellen et al. (hereafter "Kellen"). With regard to Claims 1, 3-9, and 13-24, the Office states that Kellen teaches a pressure sensitive adhesive that could be used to coat fibrous webs or sheets such as paper, woven fabrics, and nonwoven fabrics. The Office states that Kellen teaches the same backbone monomers as recited by Applicants and teaches aromatic ketones that provide the capability of crosslinking by radiation energy. The Office states that Kellen teaches that its coating may be applied to woven and nonwoven fabrics that can be formed of threads of synthetic and natural materials. The Office states that Kellen teaches the use of such coated fabrics for use in absorbent products. Applicants traverse this rejection.

Kellen teaches a pressure-sensitive adhesive which is a copolymer of an acrylate monomer and a mono-ethylenically unsaturated aromatic ketone comonomer free of ortho-aromatic hydroxyl groups copolymerizable upon exposure to ultraviolet radiation. *See* Abstract.

Claims 1 and 10 have been amended such that Claim 1 now incorporates the limitation of Claim 2 and Claim 10 now is written in independent form including all the limitations of the base Claim 1. The Office has already stated that Kellen does not teach cellulosic fibers that are curled, crimped, or twisted and does not teach the fibrous material, as described in Claim 1, further comprising a second cross-linking material capable of forming cross-linking bonds without being

Appl. No. 10/730,659  
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Customer No. 27752

impacted by radiation energy. See paragraph 6 of the Office Action dated June 15, 2004. Case law states, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987); See also MPEP § 2131. As a result, Applicants request withdrawal of the rejection and allowance of Claims 1 and 10.

Claims 3-9 are dependent from Claim 1. Claims 11-17 are dependent from Claim 10. Since Claims 1 and 10 have been shown to be novel over Kellen, all claims dependent therefrom are likewise novel over Kellen.

Claim 18 has been amended such that the method now comprises the steps of providing cellulosic fibers; applying a radiation activatable resin to said fibers; forming fiber aggregates from the resin coated fibers; and curing of said radiation activatable resin. As amended, the method involves coating the cellulosic fibers with the radiation activatable resin then forming the aggregate from the resin coated fibers. Kellen fails to disclose coating of the fibers then forming the aggregate. Kellen merely discloses applying its copolymer formulation "upon suitable backings which may include woven, nonwoven or knit fabric." Since Kellen fails to teach or suggest every element recited in amended Claim 18, Applicants respectfully request withdrawal of the rejection and allowance of the claim. Likewise, since Claims 19-24 are dependent from and contain all limitations of Claim 18, these Claims are also novel over Kellen.

Claims 1, 3-9, 13-24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by German Application No. DE3836370 to Hintze et al. (hereafter "Hintze") or European Application No. EP0024703A1 to Romer et al. (hereafter "Romer"). The Office states that both Romer and Hintze teach coating of fibrous materials using UV curable resins. The Office states that Romer teaches a filter paper that is impregnated with a solution/dispersion of at least one resin that is curable by electron radiation. The Office states that Hintze teaches a process for coating wood, wood materials, and paper using a radiation curable coating. The Office states that Hintze teaches the same backbone monomers as claimed by Applicants along with the same monomers that affect the curing by radiation. Applicants traverse the rejections.

As presented above, Claims 1 and 10 have been amended such that Claim 1 now incorporates the limitation of Claim 2 and Claim 10 now is written in independent form including all the limitations of the base Claim 1. The Office has already stated that Romer and Hintze do not teach cellulosic fibers that are curled, crimped, or twisted and do not teach the fibrous material, as described in Claim 1, further comprising a second cross-linking material capable of forming cross-linking bonds without being impacted by radiation energy. See paragraph 6 of the Office Action dated June 15,

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2004. Case law states, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987); *See also* MPEP § 2131. As a result, Applicants request withdrawal of the rejection and allowance of Claims 1 and 10.

Claims 3-9 are dependent from Claim 1. Claims 11-17 are dependent from Claim 10. Since Claims 1 and 10 have been shown to be novel over Romer and Hintze, all claims dependent therefrom are likewise novel over Romer and Hintze.

Claim 18 has been amended such that the method now comprises the steps of providing cellulosic fibers; applying a radiation activatable resin to said fibers; forming fiber aggregates from the resin coated fibers; and curing of said radiation activatable resin. As amended, the method involves coating the cellulosic fibers with the radiation activatable resin then forming the aggregate from the resin coated fibers. Romer and Hintze fail to disclose coating of the fibers then forming the aggregate. Since neither reference teaches or suggests every element recited in amended Claim 18, Applicants respectfully request withdrawal of the rejection and allowance of the claim. Likewise, since Claims 19-24 are dependent from and contain all limitations of Claim 18, these Claims are also novel over Romer and Hintze.

#### CONCLUSION

All rejections in the Office Action have been addressed. Based on the foregoing reasons, Applicant respectfully requests reconsideration and withdrawal of the rejections. Allowance of each of the pending claims in the next Office Action is requested.

Respectfully Submitted,

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September 15, 2004  
Customer No. 27752